

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES**

BASIS FOR DECISION

**PART 70 TITLE V PERMIT No. 2500-00001-V3
AGENCY INTEREST (AI) NUMBER 1238
MURPHY OIL USA INC., MERAUX REFINERY
MERAUX, ST. BERNARD PARISH, LOUISIANA**

The Louisiana Department of Environmental Quality (LDEQ), Office of Environmental Services, through this decision issues to Murphy Oil USA Inc., Meraux Refinery, a Part 70 (Title V) Permit, Number 2500-00001-V3. The refinery is located in Meraux, St. Bernard Parish, Louisiana. In this permit five (5) tanks, 300-4, 300-6A, 300-3A, 250-8, and T5, will replace five (5) existing tanks.

The LDEQ determined that adverse environmental impacts were minimized or avoided to the maximum extent possible, and it balanced social and economic factors with environmental impacts. Notably, the Louisiana constitution does not establish environmental protection as an exclusive goal. Rather, it requires a balancing process in which environmental costs and benefits must be given full and careful consideration along with economic, social, and other factors. Accordingly, the LDEQ finds that the social and economic benefits of the proposed project outweigh the adverse environmental impacts.

The details of the LDEQ's reasoning are set forth below.

FINDINGS OF FACT

I. BACKGROUND

A. Description of Facility

Murphy Oil USA Inc., an existing facility, operates the Meraux Refinery, a petroleum refinery located in Meraux, St. Bernard Parish, Louisiana. Portions were originally built by Sinclair Oil Company, and commenced operation in the 1920's. The Meraux Refinery was purchased by Murphy Oil USA Inc. in 1962. The cost of relocating the site would be economically unfeasible. The site is in an area that has been developed for industrial use and is zoned accordingly. In addition, the facility has good access to transportation via highways, rail, and water. The Meraux Refinery is subject to requirements under National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61), Maximum Achievable Control Technology (MACT) (40 CFR 63), New Source Review (NSR), and various standards under the New Source Performance Standards (NSPS).

The Meraux Refinery makes products from crude oil for use by the general public while effectively and efficiently maintaining air pollution controls for the protection of the environment. These controls include low NO_x burners in selected stationary combustion sources, a stringent leak detection and repair (LDAR) program, multiple sulfur recovery units, and advanced instrumentation to monitor facility operations.

Groundwater protection is integrated in the design of the facility. Equipment and procedures are in place to avoid any potential adverse impacts to groundwater. The procedures are reviewed periodically and updated accordingly as the regulations are updated or modified.

Recently, Meraux Refinery conducted a review after Hurricane Katrina. The facility updated the existing emergency response plan that is coordinated with the Local Emergency Planning Committee. Meraux Refinery is in the process of updating its Emergency Response Plan to: 1) minimize the possibility of leakage of hazardous chemicals; 2) minimize the amount of leakage should leakage occur; 3) promptly inform the public and relevant agencies regarding possible off-site impacts as required by law; and 4) quickly respond to mitigate any adverse effects on the environment. Extensive personnel training includes, but is not limited to, the following: 1) Hazardous Communications; 2) Personal Protective Equipment; 3) Emergency Response Procedures; 4) Hot Work Procedures; 5) Lockout/Tagout Procedures; and 6) Spill Prevention, Control and Countermeasures. The extent of the training and operation ensures that the potential for release of hazardous materials is minimized.

State and federal regulations have been promulgated specifically to address the accidental release and off-site impact of toxic and/or flammable substances. The facility assures compliance with these rules which contain requirements for hazard assessment, release prevention, emergency response, and risk management with which the facility will comply.

The Meraux Refinery requires its employees to participate in all facets of process safety management and accident prevention. The Meraux Refinery maintains a variety of documents for safety which address chemical hazards, safe operation of the processes, the technology of the processes, and the equipment used in the processes. Material Safety Data Sheets (MSDS) provides chemical specific information, including exposure hazards and emergency response/exposure treatment considerations. MSDS are readily available through the Meraux Refinery's computer system. The refinery also maintains records of construction materials, design pressure and temperature ratings, electrical area classification, piping and instruments diagrams (P&ID), etc.

B. Proposed Permit Action

Currently the facility operates under Permit No. 2500-00001-V2 dated November 20, 2007.

Murphy Oil USA Inc. submitted an application dated November 15, 2007, for a Part 70 General Air Permit. Notice of administrative completeness was published in *The Advocate* and *The St. Bernard Voice* on December 14, 2007. This notice indicated that Murphy requested coverage under a Part 70 General Air Permit. Notice of a public hearing on the proposed project was published in *The Advocate* and *The St. Bernard Voice* on January 4, 2008. As before, this notice indicated that the hearing was to receive comments on a proposed Part 70 General Air Permit. However, subsequent to the public

hearing and after evaluation of the comments received, LDEQ determined that it would be more appropriate to process Murphy's application as a minor modification to Permit No. 2500-00001-V2 in accordance with the provisions of LAC 33:III.525.

The proposed permit allows Murphy Oil USA Inc. to construct Tanks 300-4 (replacing Tank 450-1), 300-6A (replacing Tank 450-2), 300-3A (replacing Tank 250-3), 250-8 (replacing Tank 200-6), and T5 (replacing Tank 25-2).

Former Tanks 450-1 and 450-2 held 450,000 barrels (bbl) of crude oil and were located on the west side of the property. The proposed permit replaces Tanks 450-1 and Tank 450-2 with two (2) new 300,000 bbl tanks (new tanks 300-4 and 300-6A) in the same location of Tank 450-1 and Tank 450-2 respectively. In addition, Tank 450-1 and Tank 450-2 were covered under an older version of NSPS 40 CFR 60 Subpart K and will be rebuilt to a higher standard under NSPS Kb (40 CFR 60 Subpart Kb). Tank 300-4 and 300-6A will be crude oil storage tanks and will have external floating roofs for emission control.

Former Tank 250-3 was located just to the east of former tanks 450-1 and Tank 450-2. Tank 250-3 was previously permitted under a General Title V Permit to increase its size to 300,000 bbl and is designated tank 300-3 in the refinery's Title V permit (No. 2500-00001-V2). The new tank will be designated as 300-3A. Tank 250-3 was covered under an older version of NSPS and 300-3A will be rebuilt to meet the most current standards under NSPS Kb (40 CFR 60 Subpart Kb). Tank 300-3A will be a crude oil storage tank that will also store middle distillates as an alternate service and will have an external floating roof for emission control. This tank will be located in the same place as the tank being replaced.

Former Tank 200-6 was located just south of Judge Perez Drive. It was a fixed roof tank. The proposed permit replaces this tank with Tank 250-8, which will be a floating roof tank with seals that will reduce emissions. Because this tank will store diesel fuel, its vapor pressure will be below the threshold requiring controls under NSPS Subpart Kb. Tank 250-8 will meet the control requirements under NSPS Subpart Kb even though it is not subject to this standard. This tank will have authorized VOC emissions of only 0.18 tpy and will be located in the same place as the tank being replaced.

Former Tank 25-2 holds sour water and will be rebuilt farther away from the property boundary and to the center of the tank farm. This tank will be re-built in the same tank dike as Tank 80-10. The new tank, Tank T5, will be rebuilt so that it will have a greater dike area with greater spill capacity, and thus being more protective. This tank will have authorized VOC emissions of only 0.12 tpy.

The proposed permit does not adversely impact the environment because the new tanks replace existing tanks. Emissions from these tanks will be controlled under the more stringent current NSPS/NESHAP federal requirements.

Permitted emissions from the five (5) tanks in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	206.40	206.40	–
SO ₂	684.49	684.49	–
NO _x	1220.06	1220.06	–
CO	1960.70	1960.70	–
VOC	600.21	600.21	–

The requested permit application was reviewed for compliance with the Louisiana Part 70 operating permit program, Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply. The Meraux Refinery is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51-Comprehensive Toxic Air Pollutant Emission Control Program. Air Toxic Compliance Plan No. 92062 was approved June 20, 1995.

II. PUBLIC COMMENT

Notice of administrative completeness was published in *The Advocate* and *The St. Bernard Voice* on December 14, 2007. This notice indicated that Murphy requested coverage under a Part 70 General Air Permit. Notice of a public hearing on the proposed project was published in *The Advocate* and *The St. Bernard Voice* on January 4, 2008. The public notice was also mailed to persons included in the LDEQ mailing list on January 3, 2008. The public notice was also posted on the LDEQ website on January 3, 2008. On January 3, 2008 the public comment period was extended to January 11, 2008 because of a schedule conflict. The public hearing was held at the Big Tent located at 8201 West 17 Judge Perez Drive, Chalmette, Louisiana on Thursday February 7, 2008, beginning at 6:00 p.m.

A public information session was also conducted by representatives from Murphy Oil USA on November 30, 2007, at the facility, 2500 East St. Bernard Hwy, Meraux, Louisiana.

The LDEQ received written comments on the proposed permit and the environmental assessment statement during the comment period, which ended Monday February 11, 2008.

Subsequent to the public hearing and after evaluation of the comments received, LDEQ determined that it would be more appropriate to process Murphy's application as a minor modification to Permit No. 2500-00001-V2 in accordance with the provisions of LAC 33:III.525.

A "Public Comment Response Summary" was prepared for all relevant comments and is attached and made part of this Basis for Decision.

III. CONCLUSION

The LDEQ, Office of Environmental Services, Air Permits Division, has conducted a review of the information submitted and is of the opinion that a Part 70 (Title V) Permit modification should be issued to Murphy Oil USA Inc., Meraux Refinery, to modify and reconstruct the tanks.

The emissions resulting from the five (5) tanks will be controlled under the NESHAP Subpart CC and NSPS Subpart Kb (federal) requirements and LAC 33:III.2103. The estimated emissions from the project are based on conservative engineering design calculations and established and approved emission factors. The application details the emission calculations and state and federal regulatory requirements for the air emission sources.

Based on a careful review and evaluation of the entire administrative record, which includes the permit application and Emission Inventory Questionnaire (EIQ) submitted November 15, 2007, the proposed permit, and all public comments, the Louisiana Department of Environmental Quality, Office of Environmental Services, finds that the Meraux Refinery's tank project permit complies with all applicable federal and state statutes and regulations and complies with the requirements of *Save Ourselves v. La. Env'tl. Control Commission*, 452 So.2d 1152, 1157 (La. 1984). Particularly, the LDEQ finds that the proposed permit has minimized or avoided potential and real adverse environmental impacts to the maximum extent possible and that social and economic benefits of the proposed facility outweigh adverse environmental impacts. Id.



Cheryl Sonnier Nolan
Assistant Secretary
Office of Environmental Services

8 May 2008
Date